

Selection of appropriate equipment and organizational structures for and equipment for film processing depends ~~to a~~ essentially on the objectives of the overall ~~film~~ program. If the prime object were to produce up to ~~the~~ 105 minute intelligence for use in active warfare it is

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clear that rapidity of processing extremely rapid processing at a forward near a forward post echelon command post would be indicated. If, on the other hand, the prime objective was to produce an improved map of the target area, processing methods which ensured dimensional stability of the image would be given more favored over methods which gave particularly high resolution, ~~as the dependence of dimensional accuracy.~~

The primary objective of this program is neither the gathering of tactical



map. It is to supply administration
with the kind of intelligence which
will expose ~~the~~ quantitatively the
energy strengths and weaknesses
in the time of "cold war". The
need is for very high resolution
so that an accurate appraisal of
intended capacity and military strength
can be derived from the photographs. We
need specific answers to ~~the~~ such
questions as; How many troops 37
bunkers are ready for use? Has
in-flight refueling been fully developed?
How many advance staging bases are
there and where are they? What is
the state of their ICBM development?
Are there any important completely
new weapons under development? If so,
what are they like? ~~Clearly~~, Considering
the ~~significance~~ of taking these pictures
from extremely high altitudes in
order to ~~obtain~~ ~~the~~ ~~property~~ ~~of~~ ~~the~~ it is
clear that ~~the~~ ~~photographic~~

resolution possible will be none too good.

The requirement for absolute reliability in the ^{film} processing plant is probably even more critical than that for high resolution. From a simple dollar and cents standpoint loss of any film thru defective processing would be intolerable. Present estimates indicate that the average overall cost per mission will be at least \$ [redacted] In terms of ~~human~~ possible shortage of the fruits of human risk and loss of irreplaceable data there can be no excuse for not providing the best possible organization and facilities for the film processing.

~~Organization of the~~

The basic products of ~~the~~ all the missions will be 9 1/2" film in rolls up to 400 ft in length. The

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be measured almost exclusively
 by the amount of useful information
 read from this film. ~~Carroll's planning~~
~~is going into the selection of mission~~
~~routes to maximize the take~~
~~the attitude of scientific & Preparation~~
~~of the vehicle and the camera~~
 and the unrefined film ~~are all~~
~~being awarded the closest possible~~
~~attention by~~ and the ^{plans for} mission
 routes are being ~~planned~~ worked out
 with the one goal of securing
~~maximum~~ the kind of information
 indicated above. The selection of processing
 methods and their day to day
 operation must be directed with
 comparable understanding and care
 to that ^{same} goal. ~~of the full~~
~~potential~~ The objectives of this
 program is perhaps foreign to
 the thinking of many who have

had wide experience in photo reconnaissance and aerial mapping, and consequently effective communication with men experienced in those fields cannot be taken for granted.

This is to say that supervision of the film processing should be directly and authoritatively responsive to the ~~area~~ office in charge of the overall project so that the chance of inadequate communication will be minimized. ~~At the same time~~ ^{Furthermore}

It is essential that the keen sense of urgency ^{of the program} and the drive to secure photographic quality never before attained be shared equally by the ^{film} processing people and the leaders of the program.

This all calls for a closely knit organizational structure which carries full ~~authoritative~~ responsibility and authority for the operation of at least up to the point where the

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derived information has been brought to permanent record status and can be readily reproduced for distribution without hazard to the original negative.

Location of Film Processing Facility

~~If it were possible to assure the necessary reliability and quality of work at a forward~~

Logistic and security considerations make it impractical to set up the necessary processing facilities and ^{to} support the ~~size of that~~ ^{number of} technicians needed to carry out the job ~~at a forward base.~~ ^{also} ~~the~~ better of utilization of trained technicians and special equipment can be ~~effectively~~ achieved at a ZI base fed from all of the which received film from all of the forward bases or compared with establishing a processing unit with

each forward base. Furthermore
~~a major security liability is~~
~~avoided~~ by deferring development
 of the film until it is ~~safely~~
~~delivered~~ at the ~~forward~~ base,
 to develop the film on foreign
 soil would create a major
 security liability in the sense
 that a considerable number of individuals
 at the forward base would become
 intimately familiar well informed
 of the highly critical intelligence
 being garnered by the project.

For forward base operational
 control purposes there should be
 a special portable film processing
 facility to permit rapid processing
 on-the-spot processing of the
 70mm tracking film taken on
 each mission. This ~~however~~
~~entirely portable~~ will permit intelligent
~~supervision~~ supervision of the forward base

activity for purpose of ~~estimating~~ estimating
the coverage of each mission, observing
enroute weather conditions, checking
~~proper selection of exposure~~ navigation, etc.
Capacity and Type of Equipment

Present estimates indicate that
~~exposed film~~ will become available
~~for processing at a peak rate of~~
the processing facility must ~~handle~~
a must be co directed with a
peak mission activity of 40
missions per month and a total
of perhaps 240 missions over
a 12^(?) month period. The ~~total~~
amount of film per mission is
expected to average about 5,000 ft.
Thus, in order to keep abreast of
forward base production the process-
ing facility should have a capacity of
2
about 40,000 ft. per month.

Well proven film processing equipment such as the "A-9" is usually rated at 5 ft/min. From this it is apparent that even if the processing facility is planned on the basis of 24 hr/day, six day per week operation at least 2 processing machines would be required.

~~To allow adequate spare stand-~~
by allowing for maintenance and stand-by capacity at least 3 machines would be required.

~~The type of processor required~~
Because most of the film will be exposed without precise exposure control and, in fact,

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$\frac{400,00}{25}$

$\frac{800}{1600}$
1448
72

10/dy

$\frac{24}{60}$
1440

$\frac{100}{9}$

$\frac{200,00}{25}$

$\frac{8000}{1448}$

$\frac{400 \ 50}{72 \ 7}$

7 *10*

✓

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